

Development Services Committee – October 3, 2016

Proposal to retain WSP for Certain Design Work for the Reconstruction of Runway 12/30 and the Extension of the Runway End Safety Areas and the Apron area Along the East Side of a T-Hangar at the Oshawa Executive Airport (File: F-2510)

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That the Development Services Committee recommend to City Council:

Whereas on May 2, 2016, City Council authorized that Total Aviation and Airport Solutions (T.A.A.S.), the airport's contract management company, to retain two qualified independent engineering firms to support the quality control and quality assurance provisions of the airport safety management system relating to the preparation of the drawings and construction documents for the work related to the reconstruction of Runway 12/30 project and the extension of the Runway End Safety Areas (R.E.S.A.) at the Oshawa Executive Airport in a total amount not to exceed \$55,000 excluding H.S.T.; and

Whereas T.A.A.S. has retained WSP to provide the runway paving and R.E.S.A. design standards to the City's Engineering Services Branch and to complete the electrical drawings and related electrical construction documents and costing; and

Whereas in April of 2016 it was anticipated that the City's Engineering Services Branch could prepare the runway paving and R.E.S.A. drawings, construction documents and costing based on WSP's input on the specific design standards required for aircraft using the airport; and

Whereas the City's Engineering Services Branch has done some design background work but it has been determined that staff do not have the required technical expertise to complete the design work given the specialized nature of the design work;

Whereas it was also anticipated that the City's Engineering Services Branch would also undertake the design work related to the regrading/rehabilitation of the apron area along the east side of the T-hangar, west of the Taxi T2/Apron II intersection;

Whereas WSP, a qualified consultant, has submitted a proposal dated September 22, 2016 for the design work related to the reconstruction of Runway 12/30 and the extension of R.E.S.A. and the regrading/rehabilitation of the apron adjacent to the T-hangar (see Attachment 1);

Whereas the Airport Manager is satisfied that the proposal is competitive and appropriate;

Therefore be it resolved that T.A.A.S. be authorized to retain WSP for the design work related to the reconstruction of Runway 12/30 and the extension of the R.E.S.A. and the regrading/rehabilitation of the apron adjacent to the T-hangar at the Oshawa Executive

Airport at a total amount not to exceed \$40,410 plus applicable taxes and that this be funded from the Airport Development Reserve.



22 September 2016

**BY EMAIL**

**Mr. Stephen Wilcox, CM, Airport Manager**  
Oshawa Executive Airport  
1200 Airport Blvd, Suite 200  
Oshawa, ON L1J 8P5

Phone: 905-576-8146 ext.4  
Email: SWilcox@oshawa.ca

**Subject: Oshawa Executive Airport  
Runway 12-30 Rehabilitation – Civil Works  
Proposal for Professional Engineering Services**  
*O/Ref.: P16-11124-11*

Dear Mr. Wilcox:

WSP is pleased to submit the following proposal for engineering services for the proposed civil engineering design works for the Runway 12-30 Rehabilitation Project at the Oshawa Executive Airport.

## **1.0 STATEMENT OF UNDERSTANDING**

It is our understanding that the Oshawa Executive Airport (CYOO) requires civil engineering design services for the proposed Runway 12-30 Rehabilitation Project.

Included in the Runway 12-30 design is the design of Runway End Safety Areas (RESA) at both Thresholds. The design of the RESA at Threshold 12 will require the relocation of the existing municipal drain west of Threshold 12.

In addition, CYOO has requested that WSP design the re-grading / rehabilitation of the apron area along the east side of the T-Hangar west of the Taxi T2 / Apron II intersection. It is anticipated that the area to be re-graded is 100m long by 10m wide.

Design will be in compliance with the standards included in the Transport Canada document "TP312 5<sup>th</sup> Edition, Aerodrome Standards and Recommended Practices, Land Aerodromes, September 15<sup>th</sup>, 2015." Pavement structure for the proposed runway rehabilitation will be per the recommendations provided previously by WSP.

Survey data used for the design will be as provided by the City of Oshawa.

It is understood that the design flows for the existing municipal drain relocation of the west of Threshold 12 will be provided by the City of Oshawa. It is also understood that all required consultations, applications and/or permits that may be required for the relocation of this municipal drain are to be completed by the City of Oshawa. Finally, limits of the easement available for the municipal drain relocation will also be provided by the City of Oshawa.

## **2.0 SCOPE OF SERVICES**

The following outlines our proposed scope of civil engineering design services for the proposed project:

1. Schematic Design,
2. Preliminary Design,
3. Final Design, and
4. Tendering.

It is to be noted that electrical design components have previously been awarded to WSP and this design work is in progress. Electrical and civil design components will be merged as part of the Preliminary Design Submittal.

Also, the noise berm south of Threshold 30 as designed by the City of Oshawa will be merged into this project.

The resulting project consisting of the Runway 12-30 Rehabilitation (civil and electrical), the Runway 12-30 RESA's, the Threshold 30 Noise Berm and the Apron II Re-grading / Rehabilitation will be constructed as one single project.

Based on the foregoing, the following details the estimated WSP Work Program:

### **TASK 1 – SCHEMATIC DESIGN**

WSP will provide Schematic Design of the proposed Runway 12-30 Rehabilitation Project, which will be comprised of:

- A Project Site Plan, identifying project limits, pavement rehabilitation types, and proposed subdrains for both the Runway 12-30 and the Taxi T2/Apron II areas;
- A Typical Cross Section showing the proposed Runway 12-30 pavement structure as well as applicable TP312 5<sup>th</sup> Edition for the Runway Strip and Runway Safety Area (RSA) offsets, with any re-grading that may be required;

- A Class D Cost Estimate to be used for budget purposes and consultation with area contractors; and
- A summary conference call with CYOO to confirm the scope of the schematic design.

Once the schematic design has been approved by CYOO, this will form the basis of the project scope as design progresses.

## **TASK 2 –PRELIMINARY DESIGN**

Once the project scope has been confirmed, WSP will complete the Preliminary Design, which is proposed to include:

- Preliminary Design Drawings including:
  - Site Plan(s)
  - Plan & Profiles and Grading Plans for Runway 12-30 and its associated RESA's and Runway Strip
  - Subsurface Drainage Plans
  - Pavement Line Marking Plans
  - Typical Details
- Preliminary Design Technical Specifications;
- Class B Cost Estimate;
- A Design Brief outlining design assumptions and decisions; and
- A summary conference call to discuss the Preliminary Design Submittal and any changes required or Final Design.

While a Plan of Construction Operations (PCO) is generally included as a component of the Preliminary Design Submittal, we understand that the Aerodrome will be closed to air traffic for the duration of construction. As such, a PCO is not required.

As noted previously, electrical and civil design streams will be merged as part of the Preliminary Design, and both disciplines will be submitted as a single complete package for review as part of the Preliminary Design Submittal.

### **TASK 3 – FINAL DESIGN**

We understand that as part of the Quality Assurance process, our Preliminary Design will be reviewed by a third party. Once this review is complete, WSP will move forward with completion of the Final Design of the project.

Final Design documents will include:

- Final Design Drawings;
- Tender Documents (per City of Oshawa template provided) and associated specifications;
- Class A Cost Estimate; and
- A covering letter confirming changes made from the Preliminary Design Submittal.

### **TASK 4 – TENDERING**

While we understand that the project will be tendered by the City of Oshawa, we anticipate that WSP's attendance will be required at a pre-bid meeting at CYOO, along with a requirement for WSP to respond to technical questions during the tender period.

Also, WSP would draft any technical aspects of addenda to be issued, with the formal addenda to be issued by the City of Oshawa.

Upon tender closing, WSP would provide a review of bids received along with a recommendation regarding award of the construction contract.

### **3.0 PROJECT SCHEDULE**

Our proposed schedule for the CYOO Runway 12-30 Rehabilitation Project is:

Schematic Design Submittal	29 September 2016
Preliminary Design Submittal	16 November 2016
Final Design Submittal	14 December 2016
Tendering	09 January 2017

#### 4.0 PROFESSIONAL FEES

Our proposed lump sum fees for the civil engineering design services for the project are as follows:

Schematic Design Submittal	\$ 3,050.00
Preliminary Design Submittal	\$21,470.00
Final Design Submittal	\$11,090.00
<u>Tendering</u>	<u>\$ 4,800.00</u>
<b>TOTAL</b>	<b>\$40,410.00</b> plus applicable taxes

This proposal has been prepared based on the following assumptions and exclusions:

1. Topographic survey provided by others. Should additional topographic survey data be required, data to be provided by the City of Oshawa, or alternately, by WSP per the attached Aviation Group Staff Charge-Out Rates. Disbursements to be charged as incurred.
2. Design flows, applications, permits and easement limits for the relocation of the existing municipal drain west of Threshold 12 by others.
3. Fees and disbursements are exclusive of HST.
4. The fees and disbursements are considered maximum upset limits and would not be exceeded without the prior written approval of CYOO.
5. Fees are based on WSP Standard Rates which will apply to this project.
6. If the Scope of Work changes and the changes are agreed by WSP and the Oshawa Executive Airport to be significant, WSP reserves the right to request additional fees.

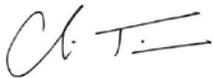
## 5.0 CLOSING

We would like to thank you for the opportunity to submit the foregoing proposal for professional consulting services related to the Runway 12-30 Rehabilitation Project.

If you are in agreement with our proposal, we would request that you sign the attached Authorization for Services and return a copy via pdf to our office.

Should you have any questions or require any additional information, please do not hesitate to contact the undersigned.

Sincerely,



Chris Timmerman, CET  
Project Design Manager, Aviation

*Encl.*

*c: Ian Rowbotham, WSP  
Brenda Murray, WSP*

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